

ATTACHMENT B

1. (Original) A method of separating a pancreatic stem cell from the pancreas of a mammal using two or more kinds of substances having specific affinity for a marker protein selected from the group consisting of c-Met, c-Kit, CD45 and TER119, or a gene encoding the same.

2. (Original) A method of separating a pancreatic stem cell from the pancreas of a mammal using two or more kinds of substances having specific affinity for a marker protein selected from the group consisting of c-Met, c-Kit, CD45, TER119 and Flk-1, or a gene encoding the same.

3. (Currently amended) The method of claim 1 ~~or 2~~, wherein the substance having specific affinity is an antibody against the marker protein.

4. (Original) A method of identifying a pancreatic stem cell of a mammal using two or more kinds of substances having specific affinity for a marker protein selected from the group consisting of c-Met, c-Kit, CD45 and TER119, or a gene encoding the same.

5. (Original) A method of identifying a pancreatic stem cell of a mammal using two or more kinds of substances having specific affinity for a marker protein selected from the group consisting of c-Met, c-Kit, CD45, TER119 and Flk-1, or a gene encoding the same.

6. (Currently amended) The method of claim 4 ~~or~~ 5, wherein the substance having specific affinity is an antibody against the marker protein.

7. (Original) A method of separating a pancreatic stem cell from the pancreas of a mammal, which comprises a step of analyzing the expression state of two or more marker proteins selected from the group consisting of c-Met, c-Kit, CD45 and TER119, or a gene encoding the same.

8. (Original) A method of separating a pancreatic stem cell from the pancreas of a mammal, which comprises a step of analyzing the expression state of two or more marker proteins selected from the group consisting of c-Met, c-Kit, CD45, TER119 and Flk-1, or a gene encoding the same.

9. (Original) A method of identifying a pancreatic stem cell from the pancreas of a mammal, which comprises a

step of analyzing the expression state of two or more marker proteins selected from the group consisting of c-Met, c-Kit, CD45 and TER119, or a gene encoding the same.

10. (Original) A method of identifying a pancreatic stem cell from the pancreas of a mammal, which comprises a step of analyzing the expression state of two or more marker proteins selected from the group consisting of c-Met, c-Kit, CD45, TER119 and Flk-1, or a gene encoding the same.

11. (Currently amended) A pancreatic stem cell that can be separated from the pancreas of a mammal by the method described in claim 1 ~~any of claims 1, 2, 7 and 8.~~

12. (Original) The pancreatic stem cell of claim 11, which shows 4 markers of c-Met, c-Kit, CD45 and TER119 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻.

13. (Original) The pancreatic stem cell of claim 11, which shows 5 markers of c-Met, c-Kit, CD45, TER119 and Flk-1 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻, Flk-1⁻.

14. (Original) A method of screening a substance that induces differentiation of a pancreatic stem cell of a mammal, which comprises the following steps:

- (i) a step of reacting a pancreatic stem cell with a test substance, and
- (ii) a step of determining the expression of a pancreatic marker in the cell after the reaction.

15. (Currently amended) A method of screening a substance that induces differentiation into liver · bile duct or stomach · intestine of a mammal, which comprises the following steps:

- (i) a step of reacting a pancreatic stem cell of claim 12 ~~or 13~~ with a test substance, and
- (ii) a step of determining the expression of a liver · bile duct or stomach · intestine marker in the cell after the reaction.

16. (Original) A method of screening a substance that regulates a pancreatic function of a mammal, which comprises the following steps:

- (i) a step of reacting a pancreatic stem cell or a cell differentiated from the stem cell with a test substance, and

(ii) a step of determining the expression of a pancreatic marker in the cell after the reaction.

17. (Currently amended) A method of screening a substance that regulates the function of liver · bile duct or stomach · intestine of a mammal, which comprises the following steps:

(i) a step of reacting a pancreatic stem cell of claim 12 ~~or 13~~ or a cell differentiated from the stem cell with a test substance, and

(ii) a step of determining the expression of a liver · bile duct or stomach · intestine marker in the cell after the reaction.

18. (Original) A cloned pluripotent pancreatic stem cell, which satisfies at least 2 of the characteristics selected from the group consisting of c-Met⁺, c-Kit⁻, CD45⁻ and TER119⁻.

19. (Original) A cloned pluripotent pancreatic stem cell, which satisfies at least 2 of the characteristics selected from the group consisting of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻ and Flk-1⁻.

20. (Currently amended) A pharmaceutical composition, which comprises:

- i) a cloned pluripotent pancreatic stem cell of claim 18 ~~or~~ 19; and
- ii) a pharmaceutically acceptable carrier.

21. (Currently amended) A purified composition, which comprises: a cloned pluripotent pancreatic stem cell of claim 18 ~~or~~ 19.

22. (Currently amended) Tissue regenerated from a cloned pluripotent pancreatic stem cell of claim 18 ~~or~~ 19.

23. (Currently amended) An organ regenerated from a cloned pluripotent pancreatic stem cell of claim 18 ~~or~~ 19.

24. (Currently amended) A method of transplanting a cloned pluripotent pancreatic stem cell into a host, which comprises:

- i) obtaining the cloned pluripotent pancreatic stem cell of claim 18 ~~or~~ 19; and
- ii) transplanting said stem cell into the host.

25. (Original) A method of producing a pancreatic stem cell, which comprises:

- i) providing cells from the pancreas of a mammal; and
- ii) selecting cells which satisfies at least 2 of the marker protein expression patterns selected from the group consisting of c-Met⁺, c-Kit⁻, CD45⁻ and TER119⁻, or a gene encoding the same.

26. (Original) A method of producing a pancreatic stem cell, which comprises:

- i) providing cells from the pancreas of a mammal; and
- ii) selecting cells which satisfies at least 2 of the marker protein expression patterns selected from the group consisting of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻ and Flk-1⁻ or a gene encoding the same.

27. (Currently amended) The method according to claim 25 ~~or~~ 26, wherein the step of selecting cells further comprises selecting cells using an antibody having a specific affinity against the marker protein.

28. (Original) A method of screening for a pancreatic stem cell of a mammal, which comprises;

- i) containing a population of cells with an antibody having specific affinity for a marker protein selected from the group consisting of c-Met, c-Kit, CD45 and TER119, or a gene encoding the same; and
- ii) fractionating the population of cells to obtain a cell having multi-differentiation ability.

29. (Original) The method of claim 28, wherein the cells are pancreatic cells.

30. (Original) The method of claim 28, wherein the cells express a marker protein pattern of c-Met⁺, c-Kit⁻, CD45⁻ and TER119⁻.

31. (Original) The method of claim 28, wherein the cells express a marker protein pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻ and Flk-1⁻.

32. (Currently amended) An agent for the prophylaxis or treatment of a pancreatic hypofunctional disease, which comprises the pancreatic stem cell of claim 12, ~~13, 18 or 19,~~ or a cell differentiated from the stem cell.

33. (Original) The agent of claim 32, wherein the pancreatic hypofunctional disease is a disease selected from the group consisting of diabetes, chronic pancreatitis, autoimmune pancreatitis and pancreatic functional disorder from surgical removal of all or part of a pancreas.

34. (Currently amended) An agent for the prophylaxis or treatment of a hypofunctional disease of the liver · bile duct, which comprises the pancreatic stem cell of claim 12, ~~13, 18 or 19~~, or a cell differentiated from the stem cell.

35. (Original) The agent of claim 34, wherein the hypofunctional disease of the liver · bile duct is a disease selected from the group consisting of acute hepatitis, chronic hepatitis, metabolic liver disease and hepatic functional disorder from surgical removal of all or part of a liver.

36. (Currently amended) An agent for the prophylaxis or treatment of a hypofunctional disease of the stomach · intestine, which comprises the pancreatic stem cell of

claim 12, ~~13, 18 or 19~~, or a cell differentiated from the stem cell.

37. (Original) The agent of claim 36, wherein the hypofunctional disease of the stomach · intestine is a disease selected from the group consisting of short bowel syndrome, inflammatory bowel disease, and stomach functional disorder from surgical removal of all or part of a stomach.

38. (New) The method of claim 2, wherein the substance having specific affinity is an antibody against the marker protein.

39. (New) The method of claim 5, wherein the substance having specific affinity is an antibody against the marker protein.

40. (New) A pancreatic stem cell that can be separated from the pancreas of a mammal by the method described in claim 2.

41. (New) A pancreatic stem cell that can be separated from the pancreas of a mammal by the method described in claim 7.

42. (New) A pancreatic stem cell that can be separated from the pancreas of a mammal by the method described claim 8.

43. (New) The pancreatic stem cell of claim 40, which shows 4 markers of c-Met, c-Kit, CD45 and TER119 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻.

44. (New) The pancreatic stem cell of claim 41, which shows 4 markers of c-Met, c-Kit, CD45 and TER119 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻.

45. (New) The pancreatic stem cell of claim 42, which shows 4 markers of c-Met, c-Kit, CD45 and TER119 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻.

46. (New) The pancreatic stem cell of claim 40, which shows 5 markers of c-Met, c-Kit, CD45, TER119 and Flk-1 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻, Flk-1⁻.

47. (New) The pancreatic stem cell of claim 41, which shows 5 markers of c-Met, c-Kit, CD45, TER119 and Flk-1 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻, Flk-1⁻.

48. (New) The pancreatic stem cell of claim 42, which shows 5 markers of c-Met, c-Kit, CD45, TER119 and Flk-1 in a pattern of c-Met⁺, c-Kit⁻, CD45⁻, TER119⁻, Flk-1⁻.

49. (New) A method of screening a substance that induces differentiation into liver · bile duct or stomach · intestine of a mammal, which comprises the following steps:
(i) a step of reacting a pancreatic stem cell of claim 13 with a test substance, and
(ii) a step of determining the expression of a liver · bile duct or stomach · intestine marker in the cell after the reaction.

50. (New) A method of screening a substance that regulates the function of liver · bile duct or stomach · intestine of a mammal, which comprises the following steps:
(i) a step of reacting a pancreatic stem cell of claim 13 or a cell differentiated from the stem cell with a test substance, and

(ii) a step of determining the expression of a liver · bile duct or stomach · intestine marker in the cell after the reaction.

51. (New) A pharmaceutical composition, which comprises:

- i) a cloned pluripotent pancreatic stem cell of claim 19;
- and
- ii) a pharmaceutically acceptable carrier.

52. (New) A purified composition, which comprises: a cloned pluripotent pancreatic stem cell of claim 19.

53. (New) Tissue regenerated from a cloned pluripotent pancreatic stem cell of claim 19.

54. (New) An organ regenerated from a cloned pluripotent pancreatic stem cell of claim 19.

55. (New) A method of transplanting a cloned pluripotent pancreatic stem cell into a host, which comprises:

- i) obtaining the cloned pluripotent pancreatic stem cell of claim 19; and

ii) transplanting said stem cell into the host.

56. (New) The method according to claim 26, wherein the step of selecting cells further comprises selecting cells using an antibody having a specific affinity against the marker protein.

57. (New) An agent for the prophylaxis or treatment of a pancreatic hypofunctional disease, which comprises the pancreatic stem cell of claim 13, or a cell differentiated from the stem cell.

58. (New) An agent for the prophylaxis or treatment of a pancreatic hypofunctional disease, which comprises the pancreatic stem cell of claim 18, or a cell differentiated from the stem cell.

59. (New) An agent for the prophylaxis or treatment of a pancreatic hypofunctional disease, which comprises the pancreatic stem cell of claim 19, or a cell differentiated from the stem cell.

60. (New) The agent of claim 57, wherein the pancreatic hypofunctional disease is a disease selected

from the group consisting of diabetes, chronic pancreatitis, autoimmune pancreatitis and pancreatic functional disorder from surgical removal of all or part of a pancreas.

61. (New) The agent of claim 58, wherein the pancreatic hypofunctional disease is a disease selected from the group consisting of diabetes, chronic pancreatitis, autoimmune pancreatitis and pancreatic functional disorder from surgical removal of all or part of a pancreas.

62. (New) The agent of claim 59, wherein the pancreatic hypofunctional disease is a disease selected from the group consisting of diabetes, chronic pancreatitis, autoimmune pancreatitis and pancreatic functional disorder from surgical removal of all or part of a pancreas.

63. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the liver · bile duct, which comprises the pancreatic stem cell of claim 13, or a cell differentiated from the stem cell.

64. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the liver · bile duct, which comprises the pancreatic stem cell of claim 18, or a cell differentiated from the stem cell.

65. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the liver · bile duct, which comprises the pancreatic stem cell of claim 19, or a cell differentiated from the stem cell.

66. (New) The agent of claim 63, wherein the hypofunctional disease of the liver · bile duct is a disease selected from the group consisting of acute hepatitis, chronic hepatitis, metabolic liver disease and hepatic functional disorder from surgical removal of all or part of a liver.

67. (New) The agent of claim 64, wherein the hypofunctional disease of the liver · bile duct is a disease selected from the group consisting of acute hepatitis, chronic hepatitis, metabolic liver disease and hepatic functional disorder from surgical removal of all or part of a liver.

68. (New) The agent of claim 65, wherein the hypofunctional disease of the liver · bile duct is a disease selected from the group consisting of acute hepatitis, chronic hepatitis, metabolic liver disease and hepatic functional disorder from surgical removal of all or part of a liver.

69. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the stomach · intestine, which comprises the pancreatic stem cell of claim 13, or a cell differentiated from the stem cell.

70. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the stomach · intestine, which comprises the pancreatic stem cell of claim 18, or a cell differentiated from the stem cell.

71. (New) An agent for the prophylaxis or treatment of a hypofunctional disease of the stomach · intestine, which comprises the pancreatic stem cell of claim 19, or a cell differentiated from the stem cell.

72. (New) The agent of claim 69, wherein the hypofunctional disease of the stomach · intestine is a

disease selected from the group consisting of short bowel syndrome, inflammatory bowel disease, and stomach functional disorder from surgical removal of all or part of a stomach.

73. (New) The agent of claim 70, wherein the hypofunctional disease of the stomach · intestine is a disease selected from the group consisting of short bowel syndrome, inflammatory bowel disease, and stomach functional disorder from surgical removal of all or part of a stomach.

74. (New) The agent of claim 71, wherein the hypofunctional disease of the stomach · intestine is a disease selected from the group consisting of short bowel syndrome, inflammatory bowel disease, and stomach functional disorder from surgical removal of all or part of a stomach.